



# UNITED STATES PATENT AND TRADEMARK OFFICE

1/ pby  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,637	07/17/2000	Tim J. Vincent	CA9-1999-0046-US1	8403
25259	7590	11/06/2003	EXAMINER	
IBM CORPORATION 3039 COWNALLIS RD. DEPT. T81 / B503, PO BOX 12195 REASEARCH TRIANGLE PARK, NC 27709			PHAN, TAM T	
		ART UNIT		PAPER NUMBER
		2142		3

DATE MAILED: 11/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/617,637	VINCENT ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	Tam (Jenny) Phan	2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 23 May 2001.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 17 July 2000 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)           | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ .                                   |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
2. The effective filing date for the subject matter defined in the pending claims in this application is 12/22/1999.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterjee et al. (U.S. Patent Number 6,243,751), hereinafter referred to as Chatterjee, and further in view of Sayan et al. (U.S. Patent Number 6,477,569).

5. Regarding claim 1, Chatterjee disclosed a computer system for providing a gateway between a transaction manager for managing database transactions from a set of applications and a server, the computer system comprising a listener process for receiving inbound connection requests from the transaction manager (Abstract, Figures 2 & 4A, column 1 lines 60-64, column 2 lines 13-17); a set of gateway agents for establishing connections to the transaction manager for receiving transaction requests and for establishing connections to the server (column 2 lines 62-65, column 3 lines 39-55, column 4 lines 26-35); a wait queue (column 12 lines 28-35,

column 14 lines 3-16); a selected gateway agent removes a logical agent and an associated inbound connection identifier from the wait queue when the selected gateway agent is available and the wait queue is non-empty (column 14 lines 41-61, column 16 lines 39-43); and for a logical agent passed by the logical agent scheduler or removed from the wait queue, the gateway agent establishes a connection to the transaction manager as defined by the associated inbound connection identifier and establishes a connection to the server to implement the logical agent (Figures 4A & 8-9, column 14 lines 41-61, column 19 lines 48-54).

6. Chatterjee did not specifically disclosed a logical agent scheduler for managing sets of logical agents, a logical agent comprising data representing a connected application from the transaction manager, each logical agent having an associated inbound connection identifier, whereby the logical agent scheduler passes a selected logical agent and an associated inbound connection identifier to an available gateway agent and where the gateway has no available gateway agent, providing the logical agent and the associated inbound connection identifier to the wait queue.

7. However, in an analogous art, Sayan disclosed a logical agent scheduler for managing sets of logical agents, a logical agent comprising data representing a connected application from the transaction manager, each logical agent having an associated inbound connection identifier (Figures 12-16, column 5 lines 33-41), whereby the logical agent scheduler passes a selected logical agent and an associated inbound connection identifier to an available gateway agent and where the gateway has no available gateway agent, providing the logical agent and the associated inbound connection identifier to the wait queue (Figures 12-16).

8. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the computer system of Chatterjee with the teachings of Sayan to include the logical agent scheduler in order to regulate the pool agent (Sayan, column 3 lines 7-14) since the request transaction could be prioritized with respect to the other requests (Sayan, column 1 lines 46-50).

9. Regarding claim 2, Chatterjee disclosed a computer system in which the gateway implements tightly coupled XA transactions from the set of applications by dedicating a single gateway agent to any given tightly coupled XA transaction, the listener process, the logical agent scheduler and the gateway agents passing logical agents to gateway agents such that any logical agent representing a transaction in that given tightly coupled XA transaction will be executed by a given gateway agent dedicated to that given tightly coupled XA transaction (column 1 lines 31-40, column 3 lines 25-35, lines 39-55, column 4 lines 22-36).

10. Regarding claim 3, Sayen disclosed a computer system further comprising a free agent list indicating which gateway agents are available for connection to the transaction manager which are not dedicated to any given tightly coupled XA transaction (Figures 12-16).

11. Regarding claim 4, Sayen disclosed a computer system implemented in a UNIX-based environment in which the connections to the transaction manager are TCP/IP socket pairs and in which the passing of logical agents and associated inbound connection endpoint identifiers is implemented by the use of domain socket pairs in the gateway (Figures 15-16, column 5 lines 33-42).

12. Regarding claim 5, Sayen disclosed a computer system in which the wait queue is implemented as a domain socket pair in the gateway (Figure 16, column 12 lines 28-35).

13. Regarding claim 6, Sayan disclosed a computer system in which domain sockets are assigned such that the logical agent scheduler has a domain socket pair dedicated for receiving logical agent and associated inbound connection pairs from the gateway agents and the listener process, and the domain socket pairs for other communication in the gateway are obtained from a pool of domain sockets (Figures 12-16, column 5 lines 22-41); Chatterjee disclosed a computer system whereby in the case that no domain socket pair is available in the domain socket pool for transfer of a logical agent and associated inbound connection pair the logical agent scheduler will place the logical agent and associated inbound connection pair in the domain socket pair which implements the wait queue (Figure 4A, column 14 lines 41-58).

14. Regarding claim 7, Sayan disclosed a computer system a gateway for demultiplexing connections from a first system to a second system (Figure 16). Chatterjee disclosed the gateway comprising internal processes which are selectively connected to implement the demultiplexing function of the gateway (Figure 4A), the gateway comprising a wait queue, the wait queue providing a buffering function for both the connections between the first system and the second system and for the connections between the internal processes (column 4 lines 22-35, column 12 lines 28-39, column 14 lines 3-15).

15. Regarding claim 8, Sayan disclosed a gateway in which the connections between the first system and the second system are TCP/IP socket pairs and the connections between the internal processes are domain socket pairs (Figure 16, column 5 lines 32-42).

16. Regarding claim 9, the teachings of Sayan and Chatterjee disclosed a gateway in which the wait queue (Chatterjee, column 14 lines 3-16) is implemented by a domain socket pair (Sayan, Figure 16 column 5 lines 32-42).

Art Unit: 2142

17. Regarding claim 10, The teachings of Sayan and Chatterjee disclosed a computer system for demultiplexing a set of TCP/IP inbound connections to a set of outbound connections, the computer system comprising a plurality of scheduler processes for providing TCP/IP inbound connections to agent processes for establishing corresponding outbound connections (Sayan Figures 1 & 12-16, column 5 lines 32-42), the scheduler processes and the agent processes communicating by domain socket pairs in the computer system, each scheduler process having a dedicated domain socket pair for receiving a TCP/IP inbound connection endpoint, the domain socket pairs for communication to the agent processes being available from a pool of domain sockets (Sayan, Figures 1 & 12-16; Chatterjee, Figures 7-9).

18. Regarding claim 11, The teachings of Chatterjee and Sayan disclosed a computer system comprising a wait queue implemented as a domain socket pair, the wait queue receiving a TCP/IP inbound connection endpoint where no agent process is available for implementing the TCP/IP inbound connection and from which non-empty wait queue an available agent process will remove a TCP/IP inbound connection endpoint to establish a TCP/IP inbound connection and an outbound connection (Chatterjee, column 14 lines 3-16; Sayan, Figure 16, column 5 lines 32-42).

19. Regarding claims 12-15, the limitations of these claims correspond directly to the computer system of claims 1-3, and thus these claims are rejected using the same rationale.

20. Regarding claims 16-18, the limitations of these claims correspond directly to the gateway of claims 7-9, and thus these claims are rejected using the same rationale.

21. Regarding claims 19-20, the limitations of these claims correspond directly to the computer system of claims 10-11, and thus these claims are rejected using the same rationale.

22. Since all the limitations of the claimed invention were disclosed by the combination of Chatterjee and Sayan, claims 1-20 are rejected.

***Conclusion***

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam (Jenny) Phan whose telephone number is (703) 305-4665. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 703-308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Marc Thompson  
Primary Examiner  
Art Unit 2142  
703-308-6750

tp  
October 30, 2003

MARC D. THOMPSON  
MARC THOMPSON  
PRIMARY EXAMINER